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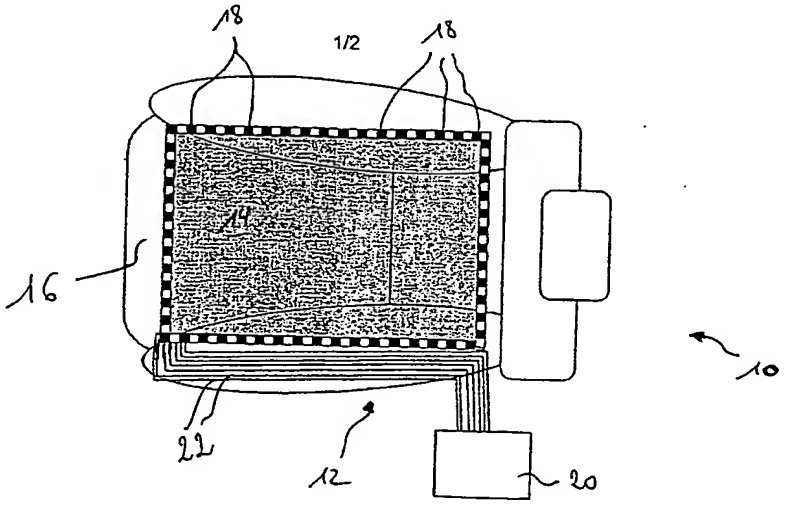
(54) Title: DEVICE FOR THE CLASSIFICATION OF SEAT OCCUPANCY



(57) Abstract: A seat occupancy sensor (12) comprises a sensing layer (14) associated to a seating surface of a seat, which has at least one electrical property varying locally in response to a pressure and/or deformation applied to said sensing layer (14). The device further comprises a plurality of electrodes (18) associated to said sensing layer (14) at a periphery of a sensing area, and a control unit (20) connected to said electrodes (18), said control unit (20) comprising means for evaluating a pressure profile acting on said sensing layer (14) by determining said at least one electrical property between pairs of electrodes (18) selected from said plurality of electrodes. The invention also relates to a method for the detection of seat occupancy comprising the steps of: c) determining said at least one electrical property of said sensing layer (14) between pairs of different locations situated at a periphery of a sensing area, and d) evaluating a pressure profile acting on said sensing layer (14) based on the determined electrical property values.

WO 2005/058653 A1